UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,449	08/25/2003	Manne Satyanarayana Reddy	BULK 3.0-026	1649

45776 7590 02/26/2007

DR. REDDY'S LABORATORIES, INC.
200 SOMERSET CORPORATE BLVD
SEVENTH FLOOR,
BRIDGEWATER, NJ 08807-2862

EXAMINER	
CHANG, CELIA C	
ART UNIT	**PAPER NUMBER**
1625	

MAIL DATE	DELIVERY MODE
02/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/647,449
Filing Date: August 25, 2003
Appellant(s): REDDY ET AL.

R. A. FRANKS
For Appellant

SUPPLEMENTAL EXAMINER'S ANSWER

This is in response to the REPLY appeal brief filed Jan. 27, 2007 responding to the Examiner's Answer mailed Nov. 30, 2006.

Some inadvertent error was noted in the examiner's answer which are hereby corrected:

--p.2, section(3) deletes the sentence "However, the rejection of ground A. should include claim 39 as well, see inclusion in office action dated March. 6, 2006.

--p.4, section (A) delete claim 39,

--p. 6, section (C) delete claim 39,

The above correction is to correct the inadvertently included claim 39 in the examiner's amendment. Claim 39 was canceled by applicants in the Dec. 5, 2005 amendment.

All sections of the Examiner's Answer mailed Nov. 20, 2006 stayed the same with the supplemental to section (10) response to argument is hereby supplemented in response to the REPLY brief with further arguments.

(10) Response to Argument

(A) Appellants continuously discuss the issue of many compounds disclosed by Grell I are not the claimed compound. This is not relevant. The particular compounds of example 12 at col. 89-90 **is** (S)-(2-Ethoxy-4-[N-{ 1 -(2-piperidino-phenyl)-3-methyl-1-butyl]-aminocarbonylmethyl]-benzoic acid). Therefore, the *noncrystalline residue* of col. 90, lines 5-6 is the exact "amorphous S-repaglinide" as claimed. A residue subject to "crystallization" is non-crystalline i.e. amorphous; this is a well-recognized fact. The objective factual evidence generally stated by Berstein or Rosen only further evidenced that the same scientific phenomena is expected for the residue of col. 90, lines 5-6. The insistence by Appellants that Grell I is *silent* as to the form of (S)-repaglinide made by evaporation is erroneous. Because Grell I at col. 90, lines 5-6 implicitly disclosed that *"The organic extract is dried, filtered and evaporated down in vacuo. The evaporation **residue** is crystallized from ethanol/water"*. Were the "residue" is a crystal, it would have described as 'the crystal is **re**crystallised in ethanol water'. So implicitly, this statement clearly convey to one having ordinary skill in the art, the residue is "noncrystalline". All noncrystalline product is amorphous.

(B) Appellants continuously argued that the Grell I IR was taken in methylene chloride is irrelevant. It was clearly pointed out that Grell I, at col. 16, disclosed that figures 4-6 are taken from solid forms A-C.

Appellants newly presented argument that there seemed to have different lines between the prior art IR and the instant IR. As it has been clearly delineated all through prosecution that the Examiner has provided reasonable evidence that the "product" as claimed are essentially the same as the prior art. Grell I although did not identify whether the solid form is the (S) form, however, given the known merit of IR which can distinguish stereo isomers, were the Grell I

form A not the (S) form, a different IR is expected. Appellants continuously argued with powder X-ray diffraction pattern for which as it was clearly evidenced in the art that such data without appropriate correction of artifacts and expert evaluation does not offer any rebuttal to the identity of two products being the same or not. Given the essentially same IR, Patent and Trandemark Office bears lesser burden of proof, Appellants bears the burden of proof with reliable and reproducible factual evidence. Not mere arguments based on possession of additional physical data such as powdered X-ray without comparison.

(C) Appellants argued that the test of obviousness is *not whether the use of different solvents is expected to result in different forms, but, with claims 1, 2, 4-47, whether it would have been obvious to make a particular form.*

The standard of making a prima facie case of obviousness is whether one having ordinary skill in the art would be motivated by the prior art to modify the prior art and expects reasonable success that such modification would have the expected merits of the prior art (MPEP §2141-2143). It was clearly delineated in the rejection that the Grell et al. '924 disclosed polymorphic forms of the compounds, i.e. example 12, amorphous and recrystallization from ethanol/water. The Grell et al. '924 taught that the particular compound can have multiple forms (which have different physical properties) when crystallization conditions such as solvents, temperature etc. were affected (see example 3, col. 85-86, col. 16, forms A,B,C). The same Grell et al. also taught in the article J. Med. Chem. with analogous compounds that crystallization can be achieved with many common laboratory solvents (see pages 5226-5227 comments under the table). When one having ordinary skill in the art is asked, based on the recited reference, is one motivated to pick and choose some other solvent then petroleum ether of example 3, the answer is 'yes' because the same expert in the field said so (J. Med. Chem.). When one having ordinary skill in the art is asked that when choose a different solvent would one *reasonably expects a changed physical form*, the answer is 'yes' because factual nature of example 3 is that conversion of forms for this compound 'happens'.

The finding of prima facie obviousness is further evidenced by statements from the state-of-the art references such as the Doelker reference that "*More than half of the pharmaceutical compounds exhibit polymorphism*"; or such as the Wikipedia encyclopedia that "*..every*

compound has different polymorphic forms, and that, in general, the number of forms known for a given compound is proportional to the time and money spent in research on that compound". Therefore, it is clear that, to one having ordinary skill in the pharmaceutical solid art, "a compound has polymorphic form" is an *obvious variation* of the crystalline compound. Just because no one has spend a lot of time and money in trying out every solvent to get every polymorphic forms does not offer any unexpectency of a polymorphic form. As it is evidenced by the state of the art textbook by Brittain, polymorphs strictly is the same pure substance. Such forms, upon spending more money and time will increase in number, i.e. is expected and obvious (see Whikipedia supra). Appellants offered no rebuttal that why by giving the variation form a name of "Form III" provided any reason to be unobvious.

(D) Appellants argued that "the Examiner believes that the instant specification lacks guidance....(p.13 reply brief) and it is an error "...to read such a limitation [that the claims requiring that the crystalline form III be maintained...] into the claims".

Please note that all through prosecution, it was clearly delineated that the 112 issues were ***analyzed*** based on the preponderance of evidence from the state of the field, nowhere a personal believe was the standard for rejection.

It is very confusing as to what is the "claims" when the limitation "requiring that the crystalline form III be maintained" is not in the claim. What does claim 11 contain if the 99% Form III is not a requirement? Appellants further argued that the specification described that the composition should be monitored for form conversion and when the conversion to a point that no more form III, the composition is simply outside the scope of claims 8-18. This argument does not offer any factual support as to the instant "form III" would be *out of the ordinary and be spontaneously maintained* while others need invest tremendous effort, time and money for such endeavor (see Trick business of record).

Responsive to THE REPLYBRIEF on Jan. 29, 2007, a supplemental Examiner's Answer is set forth above.

Appellant may file another reply brief in compliance with 37 CFR 41.41 within two months of the date of mailing of this supplemental examiner's answer. Extensions of time under 37 CFR 1.136(a) are not applicable to this two month time period. See 37 CFR 41.43(b)-(c)

The application has been forwarded to the Board of Patent Appeals and Interferences for decision on the appeal.

Respectfully submitted,

Celia Chang
Primary Examiner, AU 1625

Conferees:

Christopher Low, tQUAS, TC 1600

Cecilia Tsang, Training SPE, TC1600

Technology Center Director or designee has approved this supplemental examiner's answer by signing below:

George C. Elliott
Director, Technology Center 1600